

## REMARKS

### Introduction

Reconsideration of the present application as amended and in view of the remarks below is respectfully requested. Claims 1-42 and 60-73 are currently pending. Claims 1, 8-11, 18, 24, 29, 33, 34, 36, 37, and 61-73 have been amended. Claims 13-15 and 35 have been canceled. Upon entry of the above amendments, claims 1-12, 16-34, 36-42, and 60-73 will be pending in this application.

### Drawings

The Examiner has stated that new drawings are required in compliance with 37 CFR 1.121(d). In response to the Examiner's request, Applicants submit herewith "Replacement Sheets" for Figures 1-13 for the above-identified application meeting the requirements of 37 C.F.R. §1.121(d). No new matter has been added.

### Claim Objections

Claims 60-71 are objected to because of certain informalities related to the preamble of these claims. In response to these objections, Applicants have amended claims 60-71. In view of these amendments, Applicants believe that these claim objections have been overcome.

### Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected Claims 1-42 and 60-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duvillier et al. (US 5,749,876) in view of Kienzle, III, et al. (U.S. 6,478,802). Applicants submit that the above combination of references do not support the Examiner's rejection of the present claims under 35 U.S.C. § 103(a).

A claimed invention is unpatentable if the differences between it and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. Section 103(a); see Graham v. John

Deere Co., 383 U.S. 1, 14, 148 USPQ 459, 465 (1966). “The ultimate determination of whether an invention is or is not obvious is a legal conclusion based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness.” In re Dembiczak, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined), must teach or suggest all the claim limitations. M.P.E.P. § 2143. Moreover, to establish a *prima facie* case of obviousness, the Examiner must also demonstrate that there is an apparent reason to combine the known elements in the fashion claimed by the patent at issue. see *KSR International Co. v. Teleflex Inc.*, No. 04-1350 (Slip Op. at 14.) (550 U.S. \_\_), (April 30, 2007). Even if each feature of a claim can be independently shown within the cited art references, this alone is insufficient to conclude that a claim is obvious in view of such art. *Id.* Instead, to render a claim obvious over a combination of cited references, an Examiner must provide “some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness.” *Id.* In addition, establishing that a claimed combination is not a “predictable use of prior art elements according to their established functions” may be used to demonstrate nonobviousness. *Id.* at 13. In other words, the Examiner must “identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *Id.* at 15. Moreover, the Examiner must make “explicit” this rationale of “the apparent reason to combine the known elements in the fashion claimed,” including a detailed explanation of “the effects of demands known to the design community or present in the marketplace” and “the background knowledge possessed by a person having ordinary skill in the art.” *Id.* at 14. Essentially, the Examiner cannot pick and choose among the individual elements of assorted prior art references to recreate the claimed invention to support an obvious rejection; rather, the Examiner has the burden to show some apparent reason or justification to combine the known elements in the fashion

claimed by the patent at issue. *See Id.* and *Smith-Kline Diagnostics, Inc. v. Helena Laboratories Corp.*, 8 U.S.P.Q.2d 1468, 1475 (Fed. Cir. 1988).

**Duvillier in view of Kienzle**

Claims 1-42 and 60-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duvillier et al. (US 5,749,876) in view of Kienzle, III, et al. (U.S. 6,478,802).

Duvillier describes an apparatus for resection knee condyles, enabling a prosthesis to be fitted including femoral cutting device 12. The device includes a support element 14 having a femoral cutting blade guide 21, 24, and 30 vertically adjustable in relation to the support element. The cutting blade guide includes at least two blocks 21, 24, and 30 movable in relation to the support element and vertically adjustable in relation to the support element and vertically adjustable in relation to one another. The blocks 21, 24 and 30 moreover comprise, on each of their transverse lateral faces, a cylindrical axial pin, namely pins 36, 37 and 38 respectively, able to cooperate in a sliding manner with the slot 19 of the upright 18 opposite, which slot thus serves as a vertical guide rail on either side of said blocks. Lateral projecting flanges 39, continuing the longitudinal vertical faces of each block, and situated on either side of the latter, and whose inner faces 40 constitute friction surfaces intended to interact with the vertical lateral edges 41 of the corresponding upright 18, complete the guiding by preventing the blocks from tilting forward or backward. (See column 6, lines 42-53)

Figure 3 illustrates another embodiment of the apparatus. In particular, FIGS. 3, 3A, 3B and 3C show a femoral cutting device 300 comprising four stainless steel blocks 301, 302, 303 and 304, which are movable in relation to the support element 305, namely a lower block 301, for the lower cut X, two median blocks 302 and 303 for the beveled anterior cut Y and for the beveled posterior cut Z, respectively, an upper block 304 for the anterior cut W. (See column, 8, lines 44-50). The support element 305 furthermore includes two identical pairs of columns 313, which are cylindrical, for example, and disposed transversely in relation to the block 306, for very precise guiding and for lateral support of the blocks. (See column 9, lines 1-5)

Kienzle describes a computer assisted surgery system for accurate positioning of a drill bit into a body part. The system includes a drill guide and a drill with attached localizing emitters whose poses are determined by a localizing device.

**Claim 1**

Claim 1 as amended recites a system for cutting a bone at a desired location including a cutting block having a frame, a first guide, a first adjustor, a first mounting location, wherein the first guide defines a first cutting path having a position, the position of the first cutting path relative to the first mounting location being adjustable linearly using a grip of the first adjustor, a second guide adjustable connected to the frame, and a second adjustor connected to the frame, wherein the second guide defining a second cutting path having a position, the position of the second cutting path relative to the first mounting location being adjustable angularly using a grip of the second adjustor.

In the Office Action, the Examiner specifically states that Duvillier discloses in FIG. 3 a system for cutting a bone at a desired location including a cutting block. The Examiner states that the cutting block includes a second guide defining a second cutting path and a second adjustor having a grip where use of the second adjustor grip causes angular adjustment of the position of the second cutting path. (See Office Action, page 4, lines 18-20)

Applicants disagree with the Examiner's characterization of Duvillier. In particular as stated above, the blocks 21, 24 and 30 include lateral projecting flanges 39, continuing the longitudinal vertical faces of each block, and situated on either side of the latter, and whose inner faces 40 constitute friction surfaces intended to interact with the vertical lateral edges 41 of the corresponding upright 18, to complete the guiding by preventing the blocks from tilting forward or backward. (See column 6, lines 42-53) In addition, Figure 3 illustrates four stainless steel blocks 301, 302, 303 and 304, which are movable on two identical pairs of columns 313, which are cylindrical, for example, and disposed transversely in relation to the block 306, for very precise guiding and for lateral support. (See column 9, lines 1-5)

Applicants therefore believe that neither Duvillier or Kienzle, III, either alone or in combination, teach or suggest Applicants' claimed invention including a first guide defining a first cutting path having a position, the position of the first cutting path relative to the first mounting location being adjustable linearly using a grip of the first adjustor and a second guide defining a

second cutting path having a position, the position of the second cutting path relative to the first mounting location being adjustable angularly using a grip of the second adjustor.

**Claims 2-13, 15-28**

Claims 13 and 15 have been canceled. The rejections to those claims are therefore deemed moot. Claims 2-12 and 16-28 depend from claim 1 and contain additional limitations that define over the cited art. Furthermore, since claim 1 is believed to be allowable, claims 2-12 and 16-28 are also believed to be allowable. Removal of the rejections and allowance of claims 2-12 and 16-28 is respectfully requested.

**Claim 29**

Claim 29 as amended recites a system for locating a planar cut through a portion of a bone, including an image guided drill cylinder, a receiver, a processor coupled to the receiver, a display coupled to the processor, and a cutting block having a frame including a first mounting location configured to connect the cutting block to the bone at the target location, a first guide adjustably mounted to the frame for movement relative to the first mounting location, the first guide defining a first cutting path adapted to guide a saw for creating the planar cut when the first guide is adjusted such that the first cutting path is in a position corresponding to the planar cut, and a second guide defining a second cutting path having a position, the position of the second cutting path relative to the first mounting location being adjustable angularly.

For the reasons stated above, Applicants believe that neither Duvillier or Kienzle, III either alone or in combination, teach or suggest Applicants' claimed invention of claim 29 which includes a second guide defining a second cutting path having a position, the position of the second cutting path relative to the first mounting location being adjustable angularly. Consequently, Applicants believe that claim 29 is allowable.

**Claims 30-42**

Claim 35 has been canceled and the rejection thereto is deemed moot. Claims 30-34 and 36-42 depend from claim 29 and contain additional limitations that define over the cited art. Furthermore, since claim 29 is believed to be allowable, claims 30-34 and 36-42 are also believed to be allowable. Removal of the rejections and allowance of claims 30-34 and 36-42 is respectfully requested.

**Claim 60**

Claim 60 as originally presented recites a cutting block configured to guide a cutting instrument during a bone cutting procedure, including a frame, a first mounting location, a first guide coupled to the frame, a second guide coupled to the frame, a first adjustor coupled to the first guide, the first adjustor including a first grip configured to permit a user to actuate the first adjustor, thereby causing linear movement of at least a portion of the first cutting path relative to the first mounting location, and a second adjustor coupled to the second guide, the second adjustor including a first grip configured to permit a user to actuate the second adjustor, thereby causing angular movement of the second cutting path relative to the first mounting location.

For the reasons stated above, Applicants believe that neither Duvillier or Kienzle, III either alone or in combination, teach or suggest Applicants' claimed invention of claim 60 which includes a second adjustor including a first grip configured to permit a user to actuate the second adjustor, thereby causing angular movement of the second cutting path relative to the first mounting location. Consequently, Applicants believe that claim 60 is allowable.

**Claims 61-71**

Claims 61-71 depend from claim 60 and contain additional limitations that define over the cited art. Furthermore, since claim 60 is believed to be allowable, claims 61-71 are also believed to be allowable. Removal of the rejections and allowance of claims 61-71 is respectfully requested.

**Claim 72**

Claim 72 as amended recites a system for cutting a bone at a desired location, including a drill, an element attached to the drill, and a cutting block having a frame, a first guide adjustably connected to the frame, a first adjustor connected to the frame, a first mounting location defined by the frame and configured to attach to the bone at the target location, with the position of the first cutting path relative to the first mounting location being adjustable using a grip of the first adjustor, a second guide adjustable connected to the frame, and a second adjustor connected to the frame, with the position of the second cutting path relative to the first mounting location being adjustable angularly using a grip of the second adjustor.

For the reasons stated above, Applicants believe that neither Duvillier or Kienzle, III either alone or in combination, teach or suggest Applicants' claimed invention of claim 72 which

includes a second cutting path relative to the first mounting location being adjustable angularly using a grip of the second adjustor. Consequently, Applicants believe that claim 72 is allowable.

**Claim 73**

Claim 73 as amended recites a system for locating a planar cut through a bone, including means for image guiding a drill to create a bore in a target location of the bone, means for providing a cutting path to guide a saw for creating the planar cut, means for mounting the providing means to the bone at the target location, means for image guiding the providing means, and means for adjusting a position of the providing means relative to the mounting means, wherein the means for adjusting includes means to adjust a first cutting path linearly and a second cutting path angularly.

For the reasons stated above, Applicants believe that neither Duvillier or Kienzle, III either alone or in combination, teach or suggest Applicants' claimed invention of claim 73 which includes means for adjusting including means to adjust a first cutting path linearly and a second cutting path angularly. Consequently, Applicants believe that claim 73 is allowable.

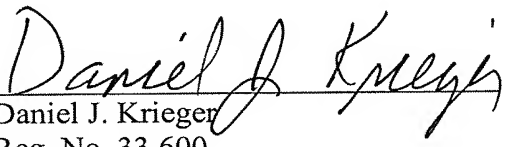
**Final Remarks**

Applicants submit that claims 1-12, 16-34, 36-42 and 60-73 are in condition for allowance. In view of the foregoing, it is respectfully submitted that all of the solicited claims are in condition for allowance. Such action is respectfully requested.

If necessary, Applicants request that this response be considered a request for an extension of time appropriate for the response to be timely filed. Applicants request that any required fees needed beyond those submitted with this response be charged to the deposit account of Bose McKinney & Evans, Deposit Account No. 02-3223.

The Examiner is invited to contact the undersigned at the telephone number provided below should any question or comments arise during the course of consideration of this matter.

Respectfully submitted,

  
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